

Parasite and Virus Infracommunity of Malayan Water Monitor Lizard (*Varanus salvator*)

**Noor Sakinah Hussain, ¹Siti Suri Arshad, ¹Shaik Mohamed Amin Babjee
& ¹Reuben Sharma**

*¹Department of Veterinary Pathology and Microbiology
Faculty of Veterinary Medicine, Universiti Putra Malaysia*

Abstract

Water monitor lizards are one of the most unique creatures in the world. The objectives of this preliminary study is to investigate the prevalence of ecto-, endo-, haemoparasites and virus in the Malayan Water Monitor Lizards and to determine whether these lizards harbour zoonotic parasites. Fifteen wild monitor lizards consisting of fourteen *Varanus salvator* and one *Varanus bengalensis* mainly from Universiti Putra Malaysia, Perkampungan Orang Asli Pulau Carey Klang and National Zoo Kuala Lumpur were examined for ecto-, endo, blood parasites, and the presence of virus. Giemsa-stained thin blood film was examined for blood parasites. Samples of blood, tissues and swabs from oral and cloacal regions were inoculated into Vero cell culture to detect the presence of virus. Ectoparasites on the skin and endoparasites in the internal organs were harvested and identified. This study revealed one species of haemoprotozoa (*Haemoproteous sp.*), one species of ectoparasite (*Amblyomma helvolum*), and five endoparasites including cestodes (*Duthiersia expansa*), trematodes (*Monogenae* fluke) and nematodes (*Hastospiculum macrophallos*, *Kalicephalus sp.*, and *Tanqua tiara*). Two species of the endoparasites have never been previously reported. The cytopathic effect can be detected in the cell culture with the highest prevalence in cloacal swabs. Both *V. salvator* and *V. bengalensis* carry almost the same parasites. The result from this study is very interesting and further studies are needed to identify the virus obtained and to study other species of varanids family as limited study was done in Malaysia.

Keywords: monitor lizards, ectoparasite, endoparasite, haemoparasite, virus